IN THE CLAIMS

1. (Cancelled)

2. (Currently Amended) The method of claim ~~1~~5, wherein said programmed sequences are taken from the group consisting of: routines and main program loops.

3. (Currently Amended) The method of claim ~~1~~5, wherein said programmed sequences comprise at least one interrupt routine.

4. (Original) The method claim 3, wherein said at least one interrupt routine is triggered by an event generated by a timer or an external signal.

5. (Currently Amended) A~~The~~ method of ~~claim 1,~~ monitoring an activation of programmed sequences of a programmed system comprising at least a first and a second programmed sequence, each to be executed iteratively,

wherein said first programmed sequence is made to monitor the execution of said second programmed sequence, and said second programmed sequence is made to monitor said first programmed sequence, and

wherein said first programmed sequence incorporates the steps of resetting a first counter associated therewith and incrementing a second counter associated with said second programmed sequence, and said second programmed sequence incorporates the steps of resetting said second counter and incrementing said first counter, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a predetermined threshold.

6. (Original) The method of claim 5, wherein said predetermined threshold for a given counter is established so as to be reached upon just one failure of the associated programmed sequence to reset that counter.

7. (Currently Amended) The method of claim ~~1~~5, wherein a failure in the activation of a

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programmed sequence, as determined by said monitoring, is made to cause a complete or partial reset of said programmed system.

8. (Cancelled)

9. (Currently Amended) The method of claim 8̶10, wherein each of said N programmed sequence is monitored by each of the N-1 other programmed sequences.

10. (Original) A̲T̶h̶e̶ method of c̶l̶a̶i̶m̶-̶8̶,̶monitoring an activation of N programmed sequences in a programmed system, each to be executed iteratively, N being an integer greater than 1,

wherein each of said N programmed sequences is monitored by at least one other programmed sequence, and

wherein each programmed sequence performs the monitoring function by incrementing a value in a respective counter associated with each programmed sequence it monitors and by checking, for each said counter, that t̶h̶e̶a̲ corresponding value has not reached a predetermined threshold, and wherein each monitored programmed sequence resets the counter associated therewith, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a predetermined threshold.

11. (Original) The method of claim 10, wherein, for a given counter, said predetermined threshold is established so as to be reached upon just one failure of the associated programmed sequence to reset that counter.

12. (Currently Amended) The method of claim 8̶10, wherein said N programmed sequences are taken from the group consisting of: routines and main program loops.

13. (Currently Amended) The method of claim 8̶10, wherein said programmed sequences comprise interrupt routines.

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14. (Original) The method of claim 13, wherein said interrupt routine is triggered by an event generated by a timer or an external signal.

15. (Currently Amended) The method of claim 8̶10, wherein a failure in the activation of a programmed sequence, as determined by said monitoring, is made to cause a complete or partial reset of said programmed system.

16. (Cancelled)

17. (Currently Amended) The program of claim 1̶6̶20, wherein said programmed sequences are taken from the group consisting of: routines and main program loops.

18. (Original) The program of claim 17, wherein said programmed sequences comprise interrupt routines.

19. (Currently Amended) A̶T̶h̶e̶ computer program of c̶l̶a̶i̶m̶ ̶1̶6̶,̶ comprising at least a first and a second programmed sequence, each to be executed iteratively, _wherein said first programmed sequence incorporates instructions for monitoring the execution of said second programmed sequence, and said second programmed sequence incorporates instructions for monitoring said first programmed sequence, and_ wherein said first programmed sequence comprises the steps of resetting a first counter associated therewith and incrementing a second counter associated with said second programmed sequence, and said second programmed sequence comprises the steps of resetting said second counter and incrementing said first counter, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a predetermined threshold.

20. (Original) The program of claim 19, wherein, for a given counter, said predetermined threshold is established so as to be reached upon just one failure of the corresponding programmed sequence to reset that counter.

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21. (Cancelled)

22. (Cancelled)

23. (Currently Amended) The program of claim ~~22~~24, wherein each programmed sequence is monitored by each of the N-1 other programmed sequences.

24. (Currently Amended) A~~The~~ computer program ~~of claim 22,~~ comprising N programmed sequences, each to be executed iteratively, N being an integer greater than 1,

wherein each of said programmed sequences is monitored by at least one other programmed sequence; and

wherein each programmed sequence comprises program steps for incrementing a value in a respective counter associated with each programmed sequence it monitors and for checking, for each said counter, that the corresponding value has not reached a predetermined threshold, and wherein each monitored programmed sequence resets the counter associated therewith, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a~~the~~ predetermined threshold.

25. (Currently Amended) The program of claim ~~22~~24, wherein said programmed sequences are taken from the group consisting of: routines and main program loops.

26. (Original) The program of claim 25, wherein said programmed sequences comprise interrupt routines.

27. (Cancelled)

28. (Cancelled)

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29. (Currently Amended) The apparatus of claim ~~28~~32, wherein said programmed sequences are taken from the group consisting of: routines and main program loops.

30. (Original) The apparatus of claim ~~28~~32, wherein said programmed sequences comprise at least one interrupt routine.

31. (Currently Amended) The apparatus of claim ~~30~~32, wherein said interrupt routine is triggered by an event generated by a timer or an external signal.

32. (Currently Amended) A~~The~~ programmed apparatus ~~of claim 28,~~ for executing iteratively at least a first and a second programmed sequence, comprising first means associated with said first programmed sequence to monitor the execution of said second programmed sequence, and second means associated with said second programmed sequence to monitor said first programmed sequence,

wherein said first means comprise means for resetting a first counter associated therewith and means for incrementing a second counter associated with said second means, and said second means comprise means for resetting said second counter and incrementing said first counter, said apparatus being operative to detect a failure in the activation of a particular programmed sequence when a counter associated with that sequence reaches a predetermined threshold.

33. (Original) The apparatus of claim 32, wherein said predetermined threshold is established so as to be reached upon just one failure of a programmed sequence to reset the corresponding counter.

34. (Currently Amended) The apparatus of claim ~~28~~32, wherein a failure in the activation of a programmed sequence, as determined by said monitoring, is made to cause a complete or partial reset of said apparatus.

35. (Cancelled)

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36. (Currently Amended) The apparatus of claim 35̶37̲, wherein each programmed sequence is monitored by each of the N-1 other programmed sequences.

37. (Currently Amended) An̲T̶h̶e̶ apparatus o̶f̶-c̶l̶a̶i̶m̶-3̶5̶,̶ for executing at least N programmed sequences, each to be executed iteratively, N being an integer greater than 1, wherein each of said N programmed sequences is monitored by at least one of the N-1 other programmed sequence, and

wherein each of said N programmed sequence is arranged to effect said monitoring function by incrementing a value in a counter associated with each respective programmed sequence it monitors and by checking, for each said counter, that t̶h̶e̲a̲ corresponding value has not reached a predetermined threshold, and wherein each monitored programmed sequence is arranged to reset the counter associated therewith, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a predetermined threshold.

38. (Original) The apparatus of claim 37, wherein said predetermined threshold is established so as to be reached upon just one failure of a programmed sequence to reset the corresponding counter.

39. (Currently Amended) The apparatus of claim 35̶37̲, wherein said programmed sequences are taken from the group consisting of: routines and main program loops.

40. (Original) The apparatus of claim 39, wherein said programmed sequences comprise interrupt routines.

41. (Original) The apparatus of claim 40, wherein said interrupt routines are triggered by events generated by a timer or external signals.

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42. (Currently Amended) The apparatus of claim 3537, wherein a failure in the activation of a programmed sequence, as determined by said monitoring, is made to cause a complete or partial reset of said apparatus.

43. (Currently Amended) A method of monitoring thean activation of programmed sequences of a programmed system comprising N programmed sequences, each to be executed iteratively, N being an integer greater than 1,

_____wherein each of said programmed sequences is monitored by at least one other programmed sequence, and

_____wherein each programmed sequence comprises program steps for incrementing a value in a respective counter associated with each programmed sequence it monitors and for checking, for each said counter, that the corresponding value has not reached a predetermined threshold, and wherein each monitored programmed sequence resets the counter associated therewith, a failure in the activation of a particular programmed sequence being detected when a counter associated with that sequence reaches a predetermined threshold.

44. (Previously Presented) The method of claim 43, wherein each programmed sequence is monitored by each of the N-1 other programmed sequences.

45. (Previously Presented) The method of claim 43, wherein each programmed sequence is monitored by at least one of the N-1 other programmed sequences.

46. (Currently Amended) The program of claim 2224, wherein each programmed sequence is monitored by at least one of the N-1 other programmed sequences.

47. (Currently Amended) The apparatus of claim 3537, wherein each programmed sequence is monitored by at least one of the N-1 other programmed sequences.

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